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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/616,261

07/08/2003

David E. Lawrence

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9872

26253

7590

10/01/2004

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EXAMINER

MILLER, CRAIG S

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,261

Applicant(s)

LAWRENCE, DAVID E.

Examiner

Craig Miller

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 1-10, 20-27 and 35-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-19, 28-34 and 43-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/8/03.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

1. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

2. Claims 11-19, 28-34 and 43-49 are rejected under 35 U.S.C. 103 as being unpatentable over Westgard *et al.* (5,937,364)

As to claims 11-16, 28-31 and 43-46, Westgard *et al.* discloses that in an automatic process of selecting quality control procedures that certain process characteristics and quality process variables are related, including sample size (measurements per run), acceptable false alarm rate (col. 2 lines 35+) and max. defect rate (col. 5 lines 38+). Westgard *et al.* does not specify that the process power (defined by applicant as the probability of rejecting a lot@ KDR). It is noted by the Examiner that process power, as defined by Applicant, is a well known function within the art of process quality (as evidenced by common glossary definitions of LTPD, Lot Tolerance Percent Defective) and is a characteristic of interest to one of ordinary skill in the process quality art. Therefore, because power is a well known quality characteristic and because Westgard *et al.* discloses that process characteristics may and should be computer calculated, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include within the device of Westgard *et al.* calculating process power as being a well known process characteristic so as to receive the expected benefits derived there from such as enhanced system accuracy absent a showing of unexpected results or synergistic results from any particular claimed combination.

More particularly with respect to claims 13 and 30, said claims are directed towards graphically displaying characteristic relationships. Westgard *et al.* discloses that operating points should be plotted (see fig. 1).

As to claims 17-19, 32-34 and 47-49, said claims are directed towards conventional statistical calculations. Westgard *et al.* does not specify such statistical calculations. It is noted by the Examiner that it is well known within the process quality art that conventional statistical calculations are valid within process quality calculations. Therefore, because statistical calculations are commonly used in the process quality art and because it is well known within the statistical art to formulate bias correction grids or point estimates for the process characteristics of Westgard *et al.* as modified above so as to receive the expected benefits derived there from such as enhanced system accuracy absent a showing of unexpected results or synergistic results from any particular claimed combination.

3. The prior art made of record but not relied upon is deemed pertinent to applicant's disclosure.


Fisher *et al.* (5,440,478) discloses improving process operations.
Brichta (5,864,483) discloses monitoring product manufacturing.
Lamey, Jr. *et al.* (6,408,219 B2) discloses yield enhancement.
Lawrence (6,636,818 B1) discloses constructing sampling plans.

4. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Craig Steven Miller whose telephone number is (571) 272-2219. Central facsimile services are now available at (703) 872-9306.

The Examiner can normally be reached on Mondays through Thursdays from 6:40am-2:10pm EDT. Should repeated attempts to reach the Examiner be unsuccessful, the Examiner's Supervisor, Marc Hoff may be reached at (571) 272-2216.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2800.

Craig Steven Miller (ss)
22 September 2004


DONALD E. McELHENY, JR.
PRIMARY EXAMINER